

REMARKS

STATUS OF CLAIMS

Claims 1-17 and 20-21 are pending and stand rejected.

By this Amendment claims 1-5 and 11-15 are amended and new claims 22-25 are added. Therefore, claims 1-17 and 20-25 are now under consideration.

No new matter is presented by the claim amendments and new claims, accordingly, entry and approval of same are submitted to be proper and are respectfully requested.

ENTRY OF AMENDMENT UNDER 37 C.F.R. § 1.116

Applicants request entry of this Rule 116 Response because the claim amendments and new claims place the application in condition for allowance.

The Manual of Patent Examining Procedures sets forth in Section 714.12 that "any amendment that would place the case either in condition for allowance or in better form for appeal may be entered." Moreover, Section 714.13 sets forth that "the Proposed Amendment should be given sufficient consideration to determine whether the claims are in condition for allowance and/or whether the issues on appeal are simplified." The Manual of Patent Examining Procedures further articulates that the reason for any non-entry should be explained expressly in the Advisory Action.

DRAWING ACKNOWLEDGEMENT

No indication of the status of the drawings is provided in item 10 of the Office Action Summary. The Examiner is again asked to acknowledge the acceptability of the Drawings (FIGS. 1-2, 3A-3B, 4A-4D, 5, 6A-6D, 7-9, 10A-10D, 11-12, 13A-13C and 14-17) in the next Office Action.

REJECTION UNDER 35 USC §103(a)

On pages 2-5 of the Office Action, item 3, claims 1-17 and 20-21 are rejected under 35 U.S.C. §103(a) as being unpatentable over Rowe (US Patent No. 5,479,190) in view of Siddiqui (US Patent No. 5,912,661).

Reconsideration is respectfully requested.

Claim 1

Claim 1 recites "a polygonal wheel having plural sides, as a circumferential edge thereof, and which is rotatable about a first axis, comprising: a plurality of rotating bodies, each of the rotating bodies disposed along a corresponding one of the plural sides and rotating along with the corresponding one of the plural sides of said polygonal wheel about the first axis and each of the rotating bodies rotatable about the corresponding one of the plural sides of said polygonal wheel as a second axis, which is different from the first axis" That is, the circumferential edge of the polygonal wheel having plural sides rotates about the first axis and each of the rotating bodies rotates along with a corresponding one of the plural sides of said polygonal wheel about the first axis, and, furthermore, each of the rotating bodies is rotatable about the corresponding one of the plural sides as a second axis. This means, according to the present invention, that each of the rotating bodies corresponds to one side of the plural sides of the polygonal wheel such that not only is a user capable of rotating the polygonal wheel about a first axis, but also, of rotating the rotating bodies about a second axis. Accordingly, multi-axial signals may be generated from not only the polygonal wheel about a first axis, but also the movement of the rotating bodies about a second axis (i.e., which is defined by a rotation of each of the rotating bodies about a corresponding one of the plural sides; emphasis added).

Rowe Reference

The Examiner corresponds the rotating bodies recited in claim 1 to segment 154 of the Rowe mouse. (See the Office Action at page 2, line 17.)

In the Rowe mouse, as described on column 8, line 8 to column 9 line 59 and FIG. 13, grooved segments 154 are slidably mounted on band 152 and may be freely moved along the entire course of band 152 in the direction indicated by Arrow "M." Further, the grooved segments also may be rotated on band 152 in the direction indicated by Arrow "R". Thus, a user can rotate the grooved segments 154, thereby rotating pickup roller 172. However, the pickup

roller 172 and grooved segments (i.e., which the Examiner corresponds to the rotating bodies of the present invention recited in claim 1) have a different relationship than recited in claim 1. That is, the disclosure of Rowe, discusses the pickup roller 172 as being supported by bearings 176 and biased against segment 152, but, otherwise does not even suggest a structure of a polygonal wheel having plural sides (also see of Rowe at Fig. 13 which clearly show the pickup roller, as a conventional wheel, which does not have plural sides thereof) and, furthermore, thereby each of the grooved segments 154 of Rowe cannot rotate about the corresponding one of the plural sides as a second axis.

Siddiqui Reference

Siddiqui discloses "a computer input device with a ... wheel button type z-encoder mechanism. The wheel button is supported on an axle or spindle within the housing of the input device. The axle is supported in the housing by spaced-apart axle supports." (See Siddiqui at column 2, lines 3-8.) However, Siddiqui, does not disclose "a plurality of rotating bodies" (see claim 1) and, more particularly, Siddiqui does not suggest anything related to each of the rotating bodies rotatable about the corresponding one of the plural sides of said polygonal wheel as a second axis.

Accordingly, it is submitted that claim 1 patentably distinguishes over the cited art for the above-mentioned reasons and should be allowable.

Claims 2 and 11-12, which each include an identical recitation to the above-mentioned recitation of claim 1, are submitted to be allowable for at least the same reasons as claim 1, as well as for the additional recitations therein.

Claims 3-10, 13-17 and 20-21, which depend from claims 1 and 11, are also submitted to be allowable for at least the same reasons as claims 1 and 11, as well as for the additional recitations therein.

NEW CLAIMS 22-25

Claim 22 is submitted to patentably distinguish over the cited art for the recitation of “a polygonal wheel having plural sides, the polygonal wheel being rotatable about a center thereof, as a first axis, each of the plural sides of the polygonal wheel couples to a respective one or ones of the plurality of rotating bodies such that each of the rotating bodies rotates with the corresponding one of the plural sides about the first axis, and is rotatable about the corresponding one of the plural sides of said polygonal wheel, as a second axis, which is different from the first axis,” and to be allowable, since the cited art does not disclose or suggest “a polygonal wheel having plural sides” and, furthermore, structural relationships of the rotating bodies therewith.

Claim 23, which depends from claim 22, is also submitted to be allowable for at least the same reasons as claim 22, as well as for the additional recitations therein.

Claim 24 is submitted to patentably distinguish over the cited art for the recitation of “a polygonal wheel having plural sides to rotate in a first direction, each of the rotating bodies being rotationally attached to a corresponding one of the plural sides to rotate in a second direction perpendicular to the first direction for multi-axial coordinate input” and to be allowable, since the cited art does not disclose or suggest “a polygonal wheel having plural sides” and, furthermore, “the rotating bodies being attached to a corresponding one of the plural sides” (as recited in claim 24).

Claim 25 is submitted to patentably distinguish over the cited art for the recitation of “a polygonal wheel having rotating bodies thereon rotating in a direction perpendicular to a wheel rotation direction for multi-axial coordinate input,” and to be allowable, since the cited art does not disclose or suggest, for example, “a polygonal wheel” (as recited in claim 25).

Entry and consideration are respectfully requested.

CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that affect is respectfully solicited.

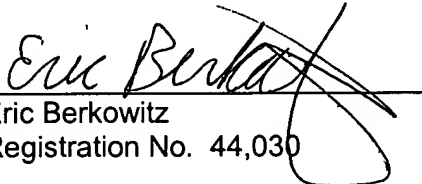
Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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Date: 2/20/04

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